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(54) Title: ANTISENSE MODULATION OF MAP KINASE KINASE 6 EXPRESSION

(57) Abstract: Antisense compounds, compositions and methods are provided for modulating the expression of MAP kinase kinase 6. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding MAP kinase kinase 6. Methods of using these compounds for modulation of MAP kinase kinase 6 expression and for treatment of diseases associated with expression of MAP kinase kinase 6 are provided.

SEQUENCE LISTING

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Lex M. Cowser
ISIS PHARMACEUTICALS, INC.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/00656

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : C12Q 1/68; C07H 211/04; C12M 15/00

US CL : 435/6, 375, 91.1, 325, 366; 536/23.1, 24.31, 24.33, 24.5

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/6, 375, 91.1, 91.3, 325, 366; 536/23.1, 23.2, 24.3, 24.31, 24.33, 24.5; 514/44

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

MEDLINE, CAPLUS, LIFESCI, BIOSIS, WEST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 96/36642 A1 (DAVIS et al.) 21 November 1996 (21.11.99) , see entire document, especially figure 6 and pages 46-47.	1, 2, 5-19
Y	US 5,801,154 A (BARACCHINI et al.) 01 September 1998 (01.09.98), see columns 6-8.	1, 2, 5-19
Y	JAMES, W. Towards gene-inhibition therapy: a review of progress and prospects in the field of antiviral antisense nucleic acids and ribozymes. Antiviral Chemistry & Chemotherapy. 1991, Vol. 2, Number 4, pages 191-214, especially page 198.	1, 2, 5-19



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

09 MARCH 2000

Date of mailing of the international search report

06 APR 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
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Washington, D.C. 20231

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Authorized officer

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Telephone No. (703) 308-0196

INTERNATIONAL SEARCH REPORTInternational application No.
PCT/US00/00656**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MILNER, N. Selecting effective antisense reagents on combinatorial oligonucleotide arrays. Nature Biotechnology. 15 June 1997 (15.06.97) Vol. 15, pages 537-541, see entire document.	1, 2, 5-19